CLAIMS:

1.   Method of transmitting first data packets and second data packets from a
transmitting station to a receiving station, wherein the first data packets comprise first
data, in particular control instructions; wherein the second data packets comprise
second data; wherein the first data packets and the second data packets are transmitted
5   from the transmitting station to the receiving station in containers; wherein a first
container comprises at least one first data packet; wherein the first container is provided
with a first error coding; wherein a second container comprises at least one second data
packet and no first data packet; wherein the second container is provided with a second
error coding; and wherein the first error coding is stronger than the second error coding.
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2.   The method of claim 1, wherein the number of first and second data
packets in the first container is smaller than the number of second data packets in the
second container such that a first data payload transmitted in the first container is lower
than a second data payload transmitted in the second container.
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3.   The method of claim 1, wherein a first retransmission protocol controls a
transmission and retransmission of a third data packet of the first and second data
packets; wherein a second retransmission protocol controls a transmission and
retransmission of the first and the second containers; wherein the first container and the
20   second container are provided with a corresponding container sequence number;
wherein each data packet of the second data packets is provided with a corresponding
data packet sequence number; and wherein a first order of the first and second data
packets which results when the first and second data packets are sent in first and second
containers remains unchanged compared with a second order of the first and second
25   data packets with which the first and second data packets are received by the second
retransmission protocol.

4.   The method of claim 1, wherein the second retransmission protocol determines whether a fourth data packet, which the second retransmission protocol receives from the first retransmission located above the second retransmission protocol, is a first data packet or a second data packet.

5.   The method of claim 4, wherein the second retransmission protocol performs the determination whether the fourth data packet is a first data packet or a second data packet by analyzing a header information, which is associated with the fourth data packet by the first retransmission protocol.

6.   The method of claim 4, wherein, if the fourth data packet is a first data packet, the fourth data packet is labelled when carried from a first transmission protocol to a second transmission protocol, which first transmission protocol is located above the second transmission protocol.

7.   The method of claim 1, wherein the method is applied for data transmission over the High Speed Downlink Shared Channel in UMTS.

8.   The method of claim 7, wherein the first data packets are RLC Control PDUs; and herein the second data packets are RLC Data PDUs.

9.   The method of claim 1, wherein a first retransmission protocol controls a transmission and retransmission of a third data packet of the first and second data packets; wherein a second retransmission protocol controls a transmission and retransmission of the first and the second containers; wherein the first container and the second container are provided with a corresponding container sequence number; wherein each data packet of the second data packets is provided with a corresponding data packet sequence number; and wherein the receiving entity of the first retransmission protocol discards second data packets, the sequence number of which is outside a receiving window, wherein a first peer entity of two peer entities of the first

retransmission protocol is adapted to initiate a reset of both peer entities, which reset is done by means of a first and second reset message included in the first data packets, which reset causes the first entity to send a first reset message to the second entity, and the second entity to send a second reset message to the first entity in reply to the first

5   reset message, which first reset message sets the lower edge of the receiving window of the second entity equal to the lower edge of the transmission window of the first entity, which lower edge was used before the reset, which second reset message sets the lower edge of the receiving window of the first entity equal to the lower edge of the transmitting window of the second entity, which lower edge was used before the receipt

10   of the first reset message.

10.   Communication system for transmitting first data packets and second data packets from a transmitting station to a receiving station, wherein the first data packets comprise first data, in particular control instructions; wherein the second data

15   packets comprise second data; wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station in containers; wherein a first container comprises at least one first data packet; wherein the first container is provided with a first error coding; wherein a second container comprises at least one second data packet and no first data packet; wherein the second

20   container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

11.   Transmitting station for transmitting first data packets and second data packets from the transmitting station to a receiving station, wherein the first data

25   packets comprise first data, in particular control instructions; wherein the second data packets comprise second data; wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station in containers; wherein a first container comprises at least one first data packet; wherein the first container is provided with a first error coding; wherein a second container

30   comprises at least one second data packet and no first data packet; wherein the second container is provided with a second error coding; and wherein the first error coding is

stronger than the second error coding.

12.   Receiving station for receiving first data packets and second data packets
from a transmitting station, wherein the first data packets comprise first data, in
5   particular control instructions; wherein the second data packets comprise second data;
wherein the first data packets and the second data packets are transmitted from the
transmitting station to the receiving station in containers; wherein a first container
comprises at least one first data packet; wherein the first container is provided with a
first error coding; wherein a second container comprises at least one second data packet
10   and no first data packet; wherein the second container is provided with a second error
coding; and wherein the first error coding is stronger than the second error coding.

13.   Software program product for performing a transmission of first data
packets and second data packets from a transmitting station to a receiving station,
15   wherein the first data packets comprise first data, in particular control instructions;
wherein the second data packets comprise second data; wherein the first data packets
and the second data packets are transmitted from the transmitting station to the
receiving station in containers; wherein a first container comprises at least one first data
packet; wherein the first container is provided with a first error coding; wherein a
20   second container comprises at least one second data packet and no first data packet;
wherein the second container is provided with a second error coding; and wherein the
first error coding is stronger than the second error coding.